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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,851	10/08/2003	Jerome D. Brown	10386US01	7145

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PO Box 64898  
St. Paul, MN 55164-0898

EXAMINER
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RIVERA, WILLIAM ARAUZ

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/681,851	<b>Applicant(s)</b> BROWN ET AL.	
	<b>Examiner</b> William A. Rivera	<b>Art Unit</b> 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 26-44 is/are pending in the application.
- 4a) Of the above claim(s) 2-8, 12, 13 and 32-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 14, 26-29, 31, 35-39, 41, 43 and 44 is/are rejected.
- 7) ☒ Claim(s) 11, 30, 40 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

Applicant's election **without** traverse of Species III (Figure 5), Claims 1, 9-11, 14, 26-31, 35, and 36, in the reply filed on February 25, 2005 is acknowledged. Claims 2-8, 12-13, 15-25, 32-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 25, 2005.

***Claim Rejections - 35 USC § 112, 1<sup>st</sup> Paragraph***

Claim 36 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In the instant case, the disclosure does not provide a sufficient explanation as to how many windings are needed to achieve the effective radial modulus. The disclosure provides no guidance or calculations needed to determine how the number of windings needed to create the applied stress that corresponds to the effective radial modulus of the tape winding surface to be greater than 0.3 million pounds-per-square-inch. Note, as set forth in Claim 36, the effective radial modulus is not a constant value but a variable that changes with each subsequent winding. Therefore it appears that when no winding is on the hub, then the effective radial modulus is zero.

***Claim Rejections - 35 USC § 112, 2<sup>nd</sup> Paragraph***

Claims 1, 9-11, 14, 35, and 37-40 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 1, 35, 36, and 37 are vague and indefinite. With respect to claims 1, 35, and 37, it is unclear as to what structure is being defined by a tape winding surface having an effective radial modulus. What properties of the winding surface are being claimed? What happens when there is no applied stress? What is the effective radial modulus when there is no applied stress? How is the structure of the winding surface changed by winding the tape thereon? Are applicants claiming a surface that varies its modulus with each subsequent winding?

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

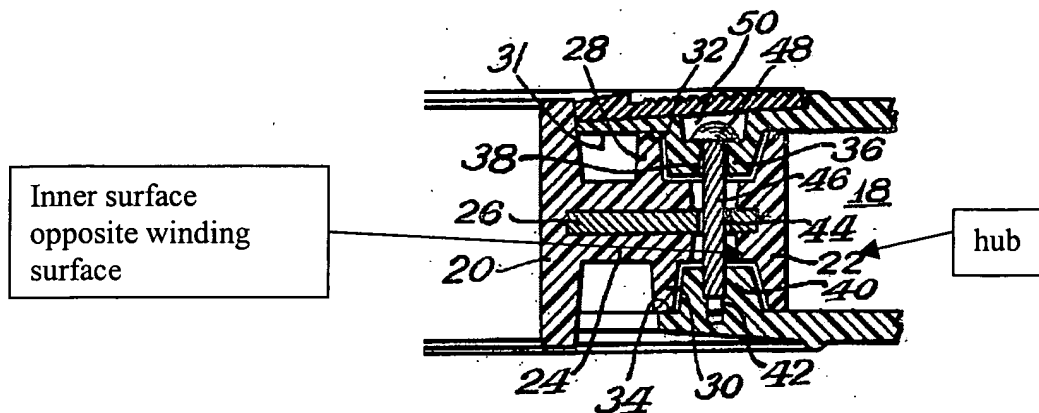
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10, 14, 26-29, 31, 35, 36, 37, 39, 41, 43, and 44 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Weyrich et al (U.S. Patent No. 3,485,456).

With respect to Claims 1, 10, 13, 14, 26-29, 31, 35-39, 41, 43, and 44, Weyrich et al, Figures 1-3, teaches a tape reel assembly comprising: a hub 22 including a core defining an inner surface opposite a tape winding surface, at least a portion of the hub being made of plastic; wherein the tape winding surface has an effective radial modulus of greater than 0.3 million pounds-per-square-inch.

It would have been obvious to one of ordinary skill in the art that Weyrich et al would meet each of the limitations because the metal insert 26 provides reinforcement for the plastic hub thereby creating a highly rigid, and sturdy reel construction.

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### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 10, 13, 14, 26-29, 31, 35, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Weyrich et al (U.S. Patent No. 3,485,456).

With respect to Claim 1, 10, 13, 14, 26-29, 31, 35, and 38, the admitted prior art, Page 10, lines 20-22, teaches a hub having an effective radial modulus of 0.19 Msi. Weyrich et al, Figures 1-3, teaches a plastic hub and a metal insert 26. It would have been obvious to one of ordinary skill in the art to provide the plastic hub of the admitted prior art with a metal insert, as taught by Weyrich et al, for the purpose of increasing the strength of the hub thereby increasing the effective radial modulus.

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***Allowable Subject Matter***

Claims 11, 30, 40, and 42 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed July 3, 2006 have been fully considered but they are not persuasive.

With respect to applicant's remarks regarding the Weyrich et al reference, note the interpretation of the claim based on the new claim language.

With respect to applicant's remarks regarding the 103 rejection, the examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would have been motivated to make the proposed combination of primary and secondary references. However, there is no requirement that a motivation to make the modification be expressly articulated in the primary reference. The test for combining references is what the combination of disclosures taken as a whole would have suggested to one of ordinary skill in the art. References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures.

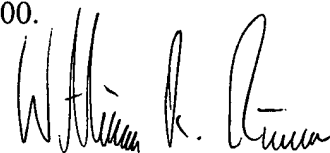
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William A. Rivera whose telephone number is 571-272-6953. The examiner can normally be reached on Monday to Thursday - 5:30 AM to 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on 571-272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'William A. Rivera', is positioned above the printed name.

**WILLIAM A. RIVERA**  
**PRIMARY EXAMINER**

October 16, 2006